5121-5128 Incl.

JEH
NOV 27 1998

5121 - 5128 Incl.

Diag. Cht. No. 532

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. 1 to 8 (Incl) *Office No.* 5121-5128(Incl.)

LOCALITY

State TEXAS

General locality HOUSTON SHIP CHANNEL

Locality MORGAN POINT TO TURNING BASIN

19 31

CHIEF OF PARTY

J. A. Bond

LIBRARY & ARCHIVES

DATE DECEMBER , 1931.

B-1870-1 (1)

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEETS (1, 2, 3, 4, 5, 6, 7, 8)

HOUSTON SHIP CHANNEL
TEXAS

INSTRUCTIONS

The hydrography included on these sheets was done under the Director's instructions of July 24, 1930, issued to Lieut. Comdr. H. B. Campbell, and supplemental instructions to the undersigned dated May 27, 1931. Lieut. Comdr. Campbell was relieved as chief of the combined operations party by the undersigned on December 5, 1930 and all hydrography on the project was done under the direction of the latter.

The areas included on the sheets are as follows:

Field No.	Office No.	Locality
1	H. 5121	Cedar Bayou to Morgan Point
2	H. 5122	Vicinity of Spilman Island
3	H. 5123	Vicinity of Alexander Island
4	H. 5124	Peggy Lake, Scott Bay
5	H. 5125	Vicinity of Lynchburg
6	H. 5126	Tucker Bayou to Green's Bayou
7	H. 5127	Green's Bayou to Clinton
8	H. 5128	Clinton to Turning Basin

SURVEY METHODS

All soundings were taken with hand lead from an 18 ft. flat bottom skiff loaned to the party by the U. S. Engineers' office at Harrisburg, Texas. Motor power was furnished by a 3 h.p. outboard motor capable of propelling the craft at speeds ranging from about 2 1/2 to 4 knots. In very shallow depths

it was at times necessary to use oars which accounts for the very close spacing of soundings over some of the mud flats.

The party consisted of two officers, leadsman, coxswain and recorder. The chief of party took right angle, plotted and directed the coxswain. The other officer took left angle and supervised the work of the leadsman and recorder.

DANGERS

The only obstructions in the areas surveyed which might be considered as dangerous to navigation are old pilings and stumps close inshore, the locations of which are clearly indicated on the smooth sheets. The bottom throughout is either mud or sand with no indication of rock or boulder formations.

CHANNELS

The main purpose of the hydrographic survey was to ascertain the depths in Buffalo Bayou and San Jacinto River between the dredged channel and the shore. Information as to the depths in the channel and the limits thereof will be furnished by the U. S. Engineers who are charged with the maintenance of the project. This organization is at present engaged in dredging operations in the channel as outlined in the following article.

The Houston Chronicle

sday, June 18, 1931 THE HOUST(

BIDS ASKED ON CHANNEL WORK

Widening and Straightening of Waterway Provided For in U. S. Specifications

Bids for the improvement work planned for Houston's Ship Channel will be opened at noon, July 17, Maj. Milo P. Fox announced Thursday.

Major Fox, United States engineer in charge of this district, advertised for the bids Wednesday. This work covers the widening of the channel from Morgan's Point to a point 4000 feet above Baytown. The Norsworthy, Lynchburg, Manchester and Harrisburg bends will be straightened out somewhat in the same program.

War Secretary Hurley allocated to the Houston Channel $954,000 for this improvement. Of this amount, Major Fox now has available $814,000.

Specifications for the project call for the removal of approximately 4,740,300 cubic yards of earth. Work will begin as soon as the contract can be let and the contracting firm make ready for the job.

The following notes are pertinent to the sheets indicated:

SHEET 1

The Houston Ship Channel passes just east of Morgan Point and continues to the west of Hog Island.

The channel leading to the westward just north of Morgan Point is part of a private terminal project known as the Barbour Development. It is understood that the channel was originally dredged to 30 feet, but as indicated on the sheet has shoaled considerably. The project has now been abandoned and the channel is used only by small craft.

The Cedar Bayou Channel, extending southeast from Cedar Bayou Beacon, is maintained by the U. S. Engineers who are now engaged in dredging operations here, the first work that has been done on the channel in several years. It will be noted that the beacons along this channel are not placed at the edge of the channel but far enough to the south to permit tugs towing barges to keep in the channel and have their barges clear the beacons.

SHEET 2

The channel shown at the extreme southern part of the sheet is a part of the Barbour Development as mentioned under Sheet 1.

The Houston Ship Channel passes south of Hog Island and north of Spilmans Island.

The Goose Creek Channel which begins at the north end of Hog Island is a privately maintained project used only by small craft and barges. It is understood that no recent improvements have been made on this channel within the past few years.

Tabbs Bay, which comprises the water area north of Hog Island, is thickly dotted with oil wells and their necessary pilings and runways. This area is of no commercial importance from a navigational standpoint.

The shoal spit extending north of Range C Front has been built up from dredge spoil from the Houston Ship Channel.

SHEET 3.

The Houston Ship Channel passes east of Jennings Island and Alexander Island. The shoal area between Jennings and Alexander Islands has been built up of dredge spoil. The area is covered at

high water, except for a few outcropping stumps and bushes.

SHEET 4

The Houston Ship Channel passes north of Alexander Island. A small channel dredged for pipe line purposes extends northeast from the vicinity of Signal Flag. The shoal area south of Goat Island has been built up by spoil from the Ship Channel. The entrance to Scott Bay is very nearly closed by shoal areas of spoil. It is understood that a project is under way to dredge a channel in this area to provide access for pleasure craft to the upper part of the bay. The entrance to Peggy Lake has been nearly closed by shoaling and dredge spoil.

SHEET 5

The Houston Ship Channel starts at the southeast corner of the sheet, passes south of Lynchburg, from whence it extends in a southwesterly direction. A ferry line crosses the channel at Lynchburg. The boat sheet contains many notes which should not be overlooked in compiling the chart of this area.

SHEET 6.

This sheet comprises only the Houston Ship Channel. It contains no features upon which comment is necessary.

SHEET 7

This sheet also contains only a section of the Houston Ship Channel. The old channel south of Irish Bend Island has been completely blocked up by dredge spoil. The mouth of Cottonpatch Bayou has been dredged for the use of sand and shell barges. A ferry crosses the channel at Pasadena.

SHEET 8

This sheet shows the northern part of the Houston Ship Channel from Clinton to the Turning Basin. Parts of several of the bayous used by small pleasure craft have been sounded out. No soundings were taken in the Turning Basin area, as this is a U. S. Engineers' project. No other features on this sheet require comment.

COMPARISON WITH PREVIOUS SURVEYS

This is the first survey of the area by the Coast Survey. Soundings shown on chart 532 in the north part of Galveston Bay agree well with those of the present survey (sheet 1). The 15 foot depths shown on chart 532 along the south shore of Morgan Point were not found. It is understood that a dredged channel existed in this vicinity at one time, extending from Morgan Point to Bayridge, but has shoaled and is no longer maintained.

Respectfully submitted.

John A. Bond

John A. Bond
Lieut., U.S.C.and G.S.
Chief of Party.

All smooth plotting on the sheets covered by the preceding report has been done by draftsmen in the Washington Office under the immediate supervision of the undersigned.

All records and sheets have been inspected and are approved.

John A. Bond
Lieut., U.S.C.and G.S.
Chief of Party.

STATISTICS FOR SHEETS

Field Nos. 1, 2, 3, 4, 5, 6, 7, 8

	Field No.	Miles (statute)	Number of Soundings	Number of Positions
H-5071	1	106.6	4575	761
72	2	53.4	2642	429
73	3	44.7	1904	303
74	4	51.7	2631	361
75	5	70.8	3438	523
76	6	34.2	1695	372
77	7	31.9	1374	302
H-5078	8	39.1	1907	452
	Total	432.4	20166	3503

Section of Field Records

Surveyed in 1931.

Report on H5121

Chief of Party John A. Bond.

Surveyed by John A. Bond and E. L. Jones

Protracted by H. K. Stamford (office)

Soundings plotted by H. K. B.

Verified and Inked by L. S. Straw

1. The records conform to the requirements of the General Instructions.

2. The plan and character of development fulfills the requirements of the General Instructions

3. The sounding line crossings are adequate for this survey.

4. The depth curves are completely drawn except on the east shore of the dredged channel between Morgan Point and Atkinson Island, where the bank is apparently vertical, and in the shallow waters directly south of Ash Point following up through Cedar Bayou.

5. This sheet (H5121) was plotted by an office draftsman as prescribed by the General Instructions and was very accurately done.

6. The junctions with adjacent sheets are satisfactory

7. Further surveying is not required to fully develop important areas within the limits of this sheet.

Respectfully Submitted

Leo L. Straw

December 3 1931.

Section of Field Records

Sheet No H 5123
Surveyed in 1931
Chief of Party John A. Bond
Surveyed by John A Bond and E.K. Jones
Protracted by L. S. Strow
Soundings plotted by L. S. Strow
Verified & Inked by E.C. McGlasson

1. The records conform to the requirements of the general instructions.
2. The plan and character of development fulfill the requirements of the general instructions.
3. The sounding line crossings are very good.
4. The usual depth curves can be completely drawn within the limits of the sheet.
5. The office draftsman did not have to do over any part of drafting done by field party; except as noted on statistic sheet.
6. The junctions with adjacent sheets will be made when they have been completed.

Respectfully submitted,
E. O. McSloosan

December 8, 1931

Section of Field Records
Report on H-5125
Surveyed in 1931

Chief of Party — John S. Bond
Surveyed by — J. A. B., & E. L. Jones
Protracted by — Leo S. Straw (Office)
Soundings plotted by — L. S. S.
Topography inked by — L. S. S.
Verified & inked by — Harold W. Murray

1. The records conform to the requirements of the Hydrographic Manual
2. The plan and character of development fulfil the requirement of the Hydrographic Manual.
3. The plan and extent of development satisfy the specific instructions.
4. There are no crossing lines in the major areas of this sheet. The proximity of soundings differing in value by several feet is due in part to the sharp slope of the dredged channel.

5. The usual depth curves can be satisfactorily drawn except the 30 ft. curve which is drawn only where the soundings clearly define its location.
6. The protracting of positions and plotting of soundings were very accurate.
7. No junctions were made with H-5124 & 5126 as these sheets, have not, as yet, been verified.
8. No comparison could be made with previous survey as this is new development.
9. A higher percent of positions had to be checked by the verifier than is usual on account of the many broken & short lines. Furthermore, there are more actual positions than are recorded because of the introduction of positions as 129½, 130½, 131½, etc.
10. On the boat sheet, the day letter "B" has been erroneously used instead of "H." day. Hence, there are two "B" days on the Boat Sheet.
11. Half-foot soundings were plotted in all depths up to 1 fathom and critical depths, the only exception being the small bay in the South East in which 1½ ft. is the controlling depth.

12. Numerous topographic details were plotted by the verifier. The need for this was occasioned by the fact that the topographic sheet was not completed in full detail when in the possession of the plotter. Topography was added to completely bound the survey in the south.

13. The sounding line: 29½c to 33c was revised. Positions 30 and 31c are indeterminate. The line appears to have been plotted on the Boat sheet and endorsed by the chief of Party on a course parallel to the other lines and passing thru a strong fix, pos. 32c. It developed by investigation that pos. 32c was incorrectly plotted on the Boat sheet. In the light of this information it was deemed advisable to change the line in its entirety.

14. At all sharp turns and changes in the various courses, the soundings were noted upon by the verifier as it was found that better agreement resulted with adjacent soundings

15. Further surveying is not required in areas covered by this sheet. Additional surveying

information will be available relative to the channel depths when the U. S. Engineers complete their work.

16. Topographic names of Rivers & Bays were added by the verifier.

Respectfully submitted—
Harold W. Murray

Section of Field Records.
Surveyed in 1931.—

Sheet No. H-5126.

Chief of Party John A. Bond.
Surveyed by John A Bond & E. F. Jones.
Protracted by D. W. Murray.
Soundings Plotted by D. W. M.
Verified and Inked by L. D. Straw.

1. The Records conform to the requirements of the General Instructions.
2. The Character and development fulfills the requirements of the General Instructions
3. The plan and extent satisfy the Specific Instructions
4. Few cross lines were run, but both sides of the dredged Channel are clearly delineated by the soundings in lines run parallel to the shore.
5. The depth curves could be completely drawn with the exception of very close inshore work and a few instances the 30 foot curve is shown dashed, and where its identity is uncertain it is omited.
6. The drafting and plotting was very accurately done by the office draftsman

7. It is thought that the junctions with Sheets H 5127 and 5125 are satisfactory. There are soundings, however, on the edge of the dredged channel which do not agree from one to three feet, particularly on the north side in junction with sheet H 5127. It is believed that these discrepancies are due to the slipping or catching of the lead on the nearly veritcal walls of the dredged channel.

Satisfactory results were obtained with the junction of sheet H. 5125 by rejecting position "1B" and the soundings to position "2B". Position "1B" is a very weak fix (see Records page 25 Vol 1.) Furthermore signals Jew, Tot, and Pit fall on or very close to the circumference of a circle, therefore causing this position "1B" to be a "swinger". Position "2B" is a stronger fix and since the depth 23 feet agrees fairly well with adjacent soundings it is accepted as correct.

8. With the use of information from the U.S. Engineers now under way, further Surveying by the U.S. Coast and Geodetic Survey will not be necessary.

Respectfully Submitted

December 16, 1931.

December 12, 1931

Section of Field Records
Report on H-5127
Surveyed in 1931

Chief of Party — John A. Bond
Surveyed by — J. A. B. & E. L. Jones.
Protracted by — Wm. H. Bamford (Office)
Soundings plotted by — W. H. B.
Topography inked by — W. H. B.
Verified & inked by — Harold W. Murray

1. The records conform to the requirements of the Hydrographic Manual
2. The plan and character of development fulfill the requirements of the Hydrographic Manual.
3. The plan and extent of development satisfy the specific instructions.
4. There are no crossing lines on this sheet. The proximity of soundings differing in value by several feet is due in part to the sharp slope of the dredged channel.
5. The usual depth curves can be satisfactorily drawn only in areas where the slope is

gradual. The 30-ft. curve was drawn in areas only where the soundings clearly defined its location.

6. The protracting of positions & plotting of soundings were very accurate.

7. No junctions were made with H-5126 and 5128. as these sheets have not, as yet, been verified. If difficulty is experienced with these junctions, particular attention should be given to this sheet as the control is weak at the extreme limits.

8. No comparison was made with previous surveys as this is new development.

9. Several small topographic details were transferred by the verifier.

10. At all sharp turns & changes in the various courses, the soundings were moved outward by the verifier. It was found that the result was better agreement with adjacent soundings.

11. Further surveying is not required in the area covered by this sheet. Additional surveying information will be available when the U. S. Engineers have completed

their work in this area.

Respectfully submitted
Harold W. Murray

Section of Field Records

Surveyed in 1931.

Report on H. 5128.

Chief of Party. John A Bond.

Surveyed by John A Bond and L. E. Jones

Protracted by R. H. Murray.

Soundings plotted by R. H. Murray

Verified and Inked by L. D. Strauss

1. The records conform to the requirements of the General Instructions

2. The character and development of the work fulfills the requirements of the General Instructions

3. The plan and extent satisfy the Specific Instructions.

4. Few cross lines were run, yet it is thought that they are adequate for this particular survey

5. The natural depth curves can be completely drawn with the exception of very close in shore especially along docks and the 30 foot curve on each edge of the channel which has been dredged approximately to thirty feet.

6. The drafting and plotting was very accurately done by the office draftsman

7. This sheet (H-5128) has one junction with sheet H. 5127. A fair agreement was obtained on the north side of the channel considering the steepness of the slope. ~~by shifting all of the soundings on H5127 slightly north eastward.~~ ~~The records are not available at this time due to moving into the New Commerce Building. In the verifier's report of sheet H5127, it is noted that the control of these positions are weak.~~

By careful comparison of the soundings on the south side of the channel it seems as though the same control was not used. The soundings agree better especially at the edge of the channel when their relative position to triangulation station Hat (1931) and signal Nor is correct. There are three soundings 14, 14, and 15 on line 1c to 3c Sheet H5127 which appear to be too close inshore. These should be investigated when the records are available.

8. Further surveying is not necessary within the limits of this sheet to serve the purpose of this work.

Respectfully Submitted

Jan. 8. 1932.

[signature]

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE		DATUM		
	° '	D. M. METERS		° '	D. P. METERS			
Beacon 2	29 41	368		94 57	1117	N.A.	Top	New charts of
Beacon 4	29 41	219		94 57	846	"	"	Houston Ship
Beacon 6	29 41	60		94 57	547	"	"	Channel and
Beacon 8	29 40	1779		94 57	308	"	"	present charts
Beacon 10	29 40	1627		94 57	27	"	"	532 and 1282.
Beacon 12	29 40	1495		94 56	1400	"	"	do
Beacon 16	29 40	1210		94 56	871	"	"	do
Beacon 22	29 36	758		94 57	156	"	Tri	1282 only
Beacon 23	29 36	681		94 57	277	"	"	do
Beacon 24	29 37	1412		94 57	1001	"	"	do
Beacon 25	29 37	1384		94 57	1151	"	"	do
Beacon 26	29 39	246		94 58	240	"	"	do
Beacon 27	29 39	196		94 58	394	"	"	do
Beacon 28	29 40	631		94 58	1001	"	"	New charts and
Beacon 29	29 40	585		94 58	1138	"	"	present charts
Beacon 32	29 42	366		95 00	1599	"	"	532 and 1282
Beacon 34	29 42	534		95 01	157	"	"	do

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 3001

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO. _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	'	D. M. METERS	°	'	D. P. METERS			
Beacon 36	29	42	704	95	01	257	N.A.	Top	New charts of
Beacon 38	29	42	1003	95	01	332		"	Houston Ship
Beacon, Ash Point	29	40	1229	94	56	787		Tri	Channel and
Beacon, Cedar Bayou	29	41	540	94	57	1432		"	present charts
Beacon 51	29	43	827	95	01	492		Top	532 and 1282
Range A - Rear	29	41	1432	94	59	770		Top	
Range A - Front	29	41	1779	94	59	605		"	
Range B - Front	29	40	1592	94	58	1269		"	
Range B - Rear	29	40	1537	94	58	1149		"	
Range C - Front	29	42	264	95	00	393		Tri	
Range C - Rear	29	42	463	95	00	640		"	
Range D - Front	29	41	574	94	59	109		"	
Range D - Rear	29	41	379	94	58	1482		"	
Range E - Front	29	42	207	95	01	155		Top	
Range E. Rear	29	42	241	95	01	470		"	
Range F - Front	29	42	37	94	59	1546		Tri	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	'	D. M. METERS	°	'	D. P. METERS			
Range F - Rear	29	42	17	94	59	1318	N.A.	Tri	New charts of
Range G - Front	29	43	832	95	01	500		Top	Houston Ship
Range G - Rear	29	43	1380	95	01	266		"	Channel and
Range H - Front	29	42	569	95	01	451		"	present charts
Range I - Front	29	43	1413	95	01	715		"	532 and 1282
Range I - Rear	29	43	1685	95	01	875		Top	
Range J - Front	29	43	1452	95	01	916		"	
Range J - Rear	29	43	1663	95	01	1132		"	
Range K - Front	29	43	1616	95	02	1456		Tri	
Range K - Rear	29	43	1660	95	03	378		"	
Range M - Front	29	44	172	95	03	589		"	
Range M - Rear	29	44	277	95	03	872		"	
Range N - Front	29	43	1424	95	02	612		"	
Range N - Rear	29	43	1298	95	02	270		"	
Range O - Front	29	44	707	95	03	1048		"	
Range O - Rear	29	44	904	95	03	1299		"	
Range P - Rear	29	43	1424	95	02	1208		"	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	'	D. M. METERS	°	'	D. P. METERS			
Range Q - Front	29	45	234	95	04	109	N.A.	Tri	New charts of
Range Q - Rear	29	45	506	95	04	271		"	Houston Ship
Range S - Front	29	45	707	95	03	1589		"	Channel and
Range S - Rear	29	45	999	95	04	63		"	present charts
Range T - Rear	29	44	407	95	03	959		"	532 and 1282
Range U - Front	29	45	1175	95	04	459		"	
Range U - Rear	29	45	1440	95	04	654		"	
Range V - Front	29	44	1790	95	03	1257		"	
Range V - Rear	29	44	1524	95	03	1083		"	
Range W - Front	29	45	1689	95	05	50		Top	
Range W - Rear	29	45	1843	95	05	318		Tri	
Range X - Rear	29	45	442	95	03	1134		"	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 2001

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	'	D. M. METERS	°	'	D. P. METERS			
Tank, 80 '	29	40	263	94	59	1352	N.A.	Top	New charts of
Tank, 30'	29	40	1595	94	59	253		"	Houston Ship
210' Transmission Tower,	29	43	1547	95	01	848		"	Channel and
210' Transmission Tower	29	43	1233	95	01	1107		Tri	present charts
80' Transmission Tower,	29	43	1078	95	01	1235		Top	532 and 1282
80' Transmission Tower,	29	44	6	95	01	598		"	
Tank, 100'	29	42	1392	95	12	1181		Tri	
Transmission Pole	29	45	1726	95	03	1067		Top	
Transmission Pole	29	45	1387	95	03	1067		"	
Transmission Pole	29	46	184	95	04	968		"	
Transmission Pole	29	46	122	95	04	1291		"	
Transmission Pole	29	45	1536	95	05	666		"	
Transmission Pole	29	45	1704	95	05	427		"	
Flagpole, 40'	29	45	442	95	05	713		Tri	
Stack, concrete	29	43	1028	95	07	929		"	
Stack, concrete	29	43	1027	95	07	955		Top	
Standpipe, 115'	29	44	628	95	08	1041		Tri	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS. FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	′	D. M. METERS	°	′	D. P. METERS			
Stack, concrete	29	43	470	95	12	1129	N.A.	Top	New charts of
Tank	29	43	619	95	12	1554		"	Houston Ship
220' Transmission Tower	29	43	802	95	13	2069		"	Channel and
220' Transmission Tower	29	43	1066	95	13	1213		"	present charts
Tank,	29	43	210	95	14	1468		Tri	532 and 1282
Stack, concrete	29	43	144	95	14	1246		Top	
Tank	29	43	1540	95	16	1136		"	
Tank	29	44	338	95	16	1386		Tri	
Tank	29	44	938	95	17	62		"	
Stack, concrete	29	43	1290	95	13	190		Top	
Stack, concrete	29	43	1288	95	13	264		"	
Stack, concrete	29	43	1456	95	13	262		"	
Stack, concrete	29	43	1480	95	13	262		"	
Stack, concrete	29	43	1551	95	13	404		"	
Stack, concrete	29	43	784	95	13	893		"	
Tank	29	44	1033	95	17	134		"	
Tank	29	44	1136	95	17	200		"	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

November 27, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE			DATUM	
	°	′	D. M. METERS	°	′	D. P. METERS		
Tank	29	44	1463	95	17	651	N.A.	Top	New charts of
Tank	29	45	345	95	17	902		"	Houston Ship
									Channel and
									present charts
									532 and 1282

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

November 13, 1931

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5121

Locality Houston Ship Channel, Texas

Chief of Party: John A. Bond, in 1931
Plane of reference is U. S. Engineers, mean low water, reading
1.9 ft. on tide staff at Morgan Point
8.3 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H. Marmer
Actg Chief, Division of Tides and Currents.

November 13, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5122

Locality Houston Ship Channel, Texas

Chief of Party: John A. Bond, in 1931
Plane of reference is U. S. Engineer's mean low water, reading
1.9 ft. on tide staff at Morgan Point
8.3 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H A Marmer
Acty Chief, Division of Tides and Currents.

rae

November 20, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5123

Locality Houston Ship Channel, Vicinity of Alexander I., Texas

Chief of Party: John A. Bond in 1931
Plane of reference is U. S. Engineer's mean low water, reading
1.9 ft. on tide staff at Morgan Point
8.3 ft. below B. M. 1
1.1 ft. on tide staff at Lynchburg
7.2 ft. below B.M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H A Marmer
Chief, Division of Tides and Currents.

rac

November 30, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5124

Locality Houston Ship Channel-Peggy Lake, Scott Bay and Vicinity, Texas

Chief of Party: John A. Bond in 1931
Plane of reference is U. S. Engineer's mean low water, reading
1.9 ft. on tide staff at Morgan Point
8.3 ft. below B. M. 1

1.1 ft. on tide staff at Lynchburg
7.2 ft. below B.M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Hammann

Acting Chief, Division of Tides and Currents.

rac

November 30, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5125

Locality Houston Ship Channel, vicinity of Lynchburg, Texas

Chief of Party: John A. Bond in 1931
Plane of reference is U. S. Engineer's mean low water, reading
1.1 ft. on tide staff at Lynchburg
7.2 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H. A. Marmer
Actg Chief, Division of Tides and Currents.

RAE

November 30, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET 5126

Locality **Houston Ship Channel-Tucker Bayou to Greens Bayou, Texas**

Chief of Party: **John A. Bond in 1931**
Plane of reference is **U. S. Engineer's mean low water, reading**
1.5 ft. on tide staff at **Shell Petroleum Co. Dock**
15.4 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H. Marmer

Acting Chief, Division of Tides and Currents.

RAE

November 30, 1931

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 5127

Locality Houston Ship Channel-Greens Bayou to Clinton, Texas

Chief of Party: John A. Bond, in 1931
Plane of reference is U. S. Engineer's mean low water, reading
1.2 ft. on tide staff at Pasadena
13.1 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Hammann

Acting Chief, Division of Tides and Currents.

November 30, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5128

Locality **Houston Ship Channel-Clinton to Turning Basin, Texas**

Chief of Party: **John A. Bond in 1931**
Plane of reference is **U. S. Engineer's mean low water, reading**
1.3 ft. on tide staff at **Manchester**
18.7 ft. below B. M. **1**
0.9 **ft. on tide staff at Turning Basin**
18.3 **ft. below B.M. 1**

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H. A. Marmer

Acting Chief, Division of Tides and Currents.

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5121.
Cedar Bayou to Morgan Point, Houston Ship Canal, Texas.
Surveyed in 1931.
Instructions dated July 24, 1930 (H. B. Campbell).
Chief of Party - J. A. Bond.
Surveyed by - J. A. Bond and E. L. Jones.
Protracted and soundings plotted by - W. H. Bamford.
Verified and inked by - L. S. Straw.

1. Records - The sounding records and boat sheet conform to the general regulations and the special instructions for this project relative to hydrography. Beacon No. 14 in the entrance canal to Cedar Bayou is not shown on the sheet and no note relative to its existence or non-existence was found in the records.

2. Soundings - The development of the water areas on this sheet is sufficient for the purpose intended. The crossings of sounding lines are satisfactory with a few exceptions. A 6 foot, a 6½ foot depth and a 7½ foot depth are shown near beacon No. 10 in the improved entrance canal to Cedar Bayou; and the 6 foot curve encroaches on the improved canal between the jetties. The Engineer's Report gives a controlling depth of 9 feet for a width of 50 feet in Cedar Bayou Canal as ascertained on June 30, 1931. Since dredging was in progress at the time the survey was made these lineups will doubtless be removed.

   The usual depths curves have been drawn on the sheet.

3. Adjacent and former surveys - The junction with the contemporary survey sheet No. 5122 at the northwest corner of this sheet is satisfactory.

   Contemporary surveys were not carried further into Galveston Bay. The junction with depths shown on Chart 532 Edition of April 1930 is satisfactory. Attention is called in the Descriptive Report to the dissappearance of all signs of the former improvement southward of Morgan Point and west of the ship canal. The depths (15, 15, 10 and 20) shown on the chart no longer exist.

   The survey shows that slightly less water exists at the head of this part of Galveston Bay than is shown on the present charts. The survey of 1853 (sheet H. 414) shows 1 to 2 feet greater depths over the same area.

4. No additional work is necessary.

5. Reviewed by - R. J. Christman - February 1932.

   Sheet inspected by - A. L. Shalowitz.

   Approved: A. M. Sobieralski. (Signed)

SECTION OF FIELD RECORDS

Review of Hydrographic Sheets Nos. 5122, 5123 and 5124.
Houston Ship Channel, Texas.
Surveyed in 1931
Instructions dated July 24, 1930 (H. B. Campbell)

Chief of Party - J. A. Bond.
Surveyed by - J. A. Bond and E. L. Jones.
Protracted and soundings plotted by -

	5122	5123	5124
	H. W. Murray	L. S. Straw	H. W. Murray
Verified and inked by-	J. D. Torrey	G.C.McGlasson	J. D. Lorrey

1. Records - Very few notes were made in the sounding books. Some valuable notes were found on the boat sheets and these have been incorporated in the smooth sheets. The hydrography also failed to locate 5 buoys [S-21, S-25, S-14, S-16 and S-30] which were not located on the topographic sheets.

2. The survey does not fully carry out the intention of the instructions. A number of additional lines should have been run in the improved channel so that the 30 foot curve could be completely drawn. Two short lines should have been run on the Hog Island side of the channel near △ Pass (H. 5122) and if this was impossible the reason should have been stated for the record (H. 5122).

3. Soundings - The lines are run lengthwise of the main channels. A few cross lines would have been of great assistance in drawing the curves. The sides of the improvement are steep and any small displacement of a sounding greatly affects the curve.

   In the Goose Creek channel (H. 5122) there are several cross lines, all of which are consistent excepting the one farthest to the westward where a strict plotting by time would bring a 2 foot depth just outside a 6 foot depth. This cross line has been adjusted to straighten the 6 foot curve.

   The low water line (yellow curve) was drawn by the hydrographer on the boat sheet and was taken into account in drawing it on the smooth sheet. Particular attention was called in the descriptive report to the channel shoal in the entrance to Peggy Lake (H. 5124) where the soundings recorded might have been construed as joining this shoal to the shoal extending off Barnes Island. In Mitchell Bay (H. 5123), the 1 foot curve and the 6 foot curve were drawn by the hydrographer and were used in drawing the 6 foot curve on the smooth sheet. The clump of "sunken piles" was transferred from the boat sheet though not recorded in the sounding records.

4. Adjacent and former surveys - The junction between contemporary sheets is satisfactory. One line of soundings (H. 5123) overlapping the work on H. 5124 showed depths too great. Position 59A (H. 5123) depends on a range and left angle. A slight change in either range or angle would shift the position to an agreement in depth. The relative location of "Rag" the central signal renders such an error in observation easily possible. The area being well developed on H. 5124, this line of soundings was omitted.

H. O. 5122, 5123 and 5124.

No previous surveys in this area have been made by the Coast and Geodetic survey. A comparison with Chart 532 Ed. April 1930 shows many differences in details.

5. The survey was made for the purpose of furnishing information for the construction of large scale charts of the Houston Ship Canal. The survey is adequate for this purpose provided U. S. Engineer's blueprints are available for plotting the improved channel.

The ranges and beacons are lighted aids. The buoys shown on the sheets were located by the topographer. The missing buoys (see par. 1) probably can be located from the Buoy List.

6. Drafting - The sheets were plotted, verified and inked in the office under the direct supervision of the Chief of Party.

7. Recommendations - No further surveys are deemed necessary at this time. (Also see par. 2 and par. 5 of this report).

Reviewed by R. J. Christman - February 1932.

Sheets inspected and recommendations approved - A. L. Shalowitz.

Approved: A. M. Sobieralski. (Signed)

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5125.
Vicinity of Lynchburg, Houston Ship Channel, Texas.
Surveyed in 1931
Hand lead soundings
Instructions dated July 24, 1930 (Lieut. Comdr. H. B. Campbell).

Chief of party - J. A. Bond
Surveyed by - J. A. Bond and E. L. Jones
Protracted and plotted by - L. S. Straw
Verified and inked by - H. W. Murray.

1. The records conform to the requirements of the Hydrographic Manual, except that a sufficient number of bottom characteristics have not been recorded.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. Most of the lines in Houston Ship Channel were run parallel to the shore between the shoreline and the edge of the channel. The slope is fairly steep and the soundings agree as well as can be expected.

   In Burnett Bay and Crystal Lake the area is flat and the soundings agree well.

   In the San Jacinto River there are a number of cross lines which show good agreement with the exception of a 13 foot sounding in Lat. 29°- 46.'0, Long 95° - 04.'75 which looks like it might have been recorded a fathom too shoal.

4. The information is sufficient for drawing the usual depth curves with the exception of the 30 foot curve which can only be partially shown.

5. The junction on the west with H. 5126 is satisfactory.
   The junction on the south with H. 5124 is adequate.

6. The protracting and plotting was done by members of the office force under the supervision of the Chief of Party and is well done.

7. The character of the work is excellent and the scope of the surveying sufficient except that there are some places in the Houston Ship Channel where the work does not extend far enough from the shore to definitely define the edge of the channel.

   As there were no dangers outside of a few stumps and piles, no close development was necessary.

8. Additional work is not required.

9. Reviewed by R. L. Johnston - Feb. 15, 1932.

   Memorandum by A. L. Shalowitz.
   The 13 foot sounding mentioned in par. 3 above should be considered of doubtful accuracy, but will be retained, nevertheless. It is not in the

Report, H. 5125.

main ship channel and the controlling depth in this area of the San Jacinto River is much less than 13 feet.

Sheet Inspected by A. L. Shalowitz - Feb. 1932.

Approved: A. M. Sobieralski. (Signed)

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5126
Tucker Bayou to Greens Bayou, Houston Ship Channel, Texas.
Surveyed in 1931.
Hand lead soundings.
Instructions dated July 24, 1930. (Lieut. Comdr. H. B. Campbell).

Chief of party - J. A. Bond.
Surveyed by - J. A. Bond and E. L. Jones.
Protracted and plotted by - H. W. Murray.
Verified and inked by - L. S. Straw.

1. The records conform to the requirements except for the lack of bottom characteristics. Page 12 in this record is the only page on which bottom specimens have been recorded.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. There are very few cross lines, most of the lines being run parallel to the shore between the shoreline and the edge of the channel. The slope here is steep and the soundings agree as well as can be expected.

4. The information is sufficient for drawing the usual depth curves with the exception of the 30 foot curve which can only be partially shown.

5. The junction on the west with H. 5127 is adequate but there are slight differences in depth on the north side of the channel which may be due either to the slope or the rather weak control at the extremities of the lines on H. 5127.

   The junction on the east with H. 5125 is satisfactory.

6. The protracting and smooth plotting was done by members of the office force under the supervision of Mr. Bond and is well done.

7. The character of the work is excellent and the scope of the surveying sufficient except that in some places the work could have been carried further off shore. The only dangers within this area are stumps and piles and no close development was needed.

8. Additional work is not necessary.

9. Reviewed by R. L. Johnston, Feb. 10, 1932.
   Sheet Inspected by A. L. Shalowitz, Feb. 1932.
   Approved: A. M. Sobieralski. (Signed)

Section of Field Records
Report on Hydrographic Sheet No. 5127
Greens Bayou to Clinton, Houston Ship Channel, Texas.
Surveyed in 1931.
Hand lead soundings.
Instructions dated July 24, 1930. (Lieut. Comdr. H. B. Campbell).

Chief of party - J. A. Bond.
Surveyed by - J. A. Bond and E. L. Jones.
Protracted and plotted by - W. H. Bamford.
Verified and inked by - H. W. Murray.

1. The records conform to the requirements except that only two bottom characteristics were recorded on all the sounding lines shown on this sheet. Although there is no rocky bottom in this area, a reasonable number of bottom specimens should have been taken.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. There are no cross lines, most of the lines being parallel to the shore, between the shoreline and the edge of the channel, where the slope is so steep that perfect agreement can not be expected.

4. The information is sufficient for drawing the usual depth curves with the exception of the 30 foot curve which can be partially but not completely shown.

5. The junction on the west with H. 5128 is adequate but there are some differences in depth which are not considered excessive because of the slope.

   The junction on the east with H. 5126 is adequate but there are some differences in depth on the north side of the channel which may be due to the slope or the rather weak control at the extremities of the lines on this sheet, H. 5127.

6. The protracting and smooth plotting was done entirely by members of the office force, under the supervision of Mr. Bond and is well done.

7. The character of work is excellent and the scope of the surveying sufficient except that in a few places the work does not extend far enough off shore to reach the dredged depth of 30 feet. There are no dangers within this area except stumps and piling and no close development was necessary.

8. Additional work is not required.

9. Reviewed by R. L. Johnston - Feb. 3, 1932.
   Inspected by - A. L. Shalowitz - Feb. 1932.
   Approved: A. M. Sobieralski. (Signed)

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5128.
Clinton to Turning Basin, Houston Ship Channel, Texas.
Surveyed in 1931.
Hand lead soundings.
Instructions dated July 24, 1930. (Lieut. Comdr. H. B. Campbell).

Chief of party - J. A. Bond.
Surveyed by J. A. Bond and E. L. Jones.
Protracted and plotted by - H. W. Murray.
Verified and inked by - L. S. Straw.

1. The records conform to the requirements except for the fact that no bottom specimens have been recorded. While the bottom is known to be mud and sand throughout with no rocky formations some bottom characteristics would add to the general information.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. There are practically no crossings but the soundings agree well considering that most of the lines were run between the shore line and the edge of the channel where the slope is steep.

4. The information is sufficient for drawing the usual depth curves with the exception of the 30 foot curve which can be partly but not completely shown.

5. As this is the last sheet in the series there are no junctions except on the east with H. 5127. This junction appears satisfactory.

6. All the protracting and smooth plotting was done by members of the office force under the supervision of Mr. Bond and is well done.

7. The character of the work is considered excellent and the scope of the surveying sufficient except that in some places the work does not extend far enough off shore to reach the dredged depth of 30 feet and there is a possibility that there may have been some shoaling since dredging was done. Since there are no dangers within this area, excepting stumps and piling, no close development was needed.

8. No additional work is necessary.

9. Reviewed by R. L. Johnston - Jan. 29, 1932.

Inspected by - A. L. Shalowitz - Feb. 1932.

Approved: A. M. Sobieralski. (Signed)

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. H.5121

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	761
Number of positions checked	429
Number of positions revised	4
Number of soundings recorded	4575
Number of soundings revised	19
Number of signals erroneously plotted or transferred	0

Date: December 3, 1931

Cartographer: Lloyd L. Swan

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5123

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	303.
Number of positions checked	124.
Number of positions revised	1
Number of soundings recorded	1904
Number of soundings revised	55.
Number of signals erroneously plotted or transferred	None

Date: 7 December 1931

Cartographer: A. C. McGlasson

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5125

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	523
Number of positions checked	380
Number of positions revised	13
Number of soundings recorded	3438
Number of soundings revised	52
Number of signals erroneously plotted or transferred	✓

Date: December 8, 1931

Cartographer: Harold W. Murray

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5126

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	372
Number of positions checked	190
Number of positions revised	4
Number of soundings recorded	1695
Number of soundings revised	5
Number of signals erroneously plotted or transferred	0

Date: December 16, 1931

Cartographer: Leo Thrasher

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5127

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	302
Number of positions checked	153
Number of positions revised	2
Number of soundings recorded	1374
Number of soundings revised	62
Number of signals erroneously plotted or transferred	—

Date: December 14, 1931

Cartographer: Harold W. Murray

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5128

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	452
Number of positions checked	230
Number of positions revised	0
Number of soundings recorded	1907
Number of soundings revised	5
Number of signals erroneously plotted or transferred	0

Date: January 8, 1932

Cartographer: [signature]

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5121

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1

REGISTER NO. 5121

State Texas

General locality Houston Ship Channel

Locality Cedar Bayou to Morgan Point

Scale 1/5000 Date of survey May 3 to 20, 1931

Vessel Skiff

Chief of Party John A. Bond

Surveyed by John A. Bond, E. L. Jones

Protracted by W. H. Bamford

Soundings penciled by W. H. Bamford

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by L. A. Strauss

Verified by

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5122

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 2

REGISTER NO. 5122

State Texas

General locality Houston Ship Channel

Locality Vicinity of Spilmans Island

Scale 1 : 5000 Date of survey May 6 to 26, 1931

Vessel Skiff

Chief of Party John A. Bond

Surveyed by John A. Bond, E. L. Jones

Protracted by H. W. Murray

Soundings penciled by H. W. Murray

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by J. D. Torrey

Verified by J. D. T.

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5123

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 3

REGISTER NO. 5123

State Texas

General locality Houston Ship Channel

Locality Vicinity of Alexander Island

Scale 1/5000 Date of survey May 1931, 19

Vessel Skiff

Chief of Party John A. Bond

Surveyed by John A. Bond, E. L. Jones

Protracted by L. S. Straw

Soundings penciled by L. S. Straw

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by G. C. McGlasson

Verified by G. C. McGlasson

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5124

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 4

REGISTER NO. 5124

State Texas

General locality Houston Ship Channel

Locality Peggy Lake, Scott Bay and Vicinity

Scale 1/5000 Date of survey June, 1931, 19

Vessel Skiff

Chief of Party John A. Bond

Surveyed by John A. Bond, E. L. Jones

Protracted by H. W. Murray

Soundings penciled by H. W. Murray

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by J. D. Torrey

Verified by J D T

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5125

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 5

REGISTER NO. 5125

State Texas

General locality Houston Ship Channel

Locality Vicinity of Lynchburg

Scale 1/5000 Date of survey June 11 to July 3 19 31

Vessel

Chief of Party John A. Bond

Surveyed by John A. Bond, Edmund L. Jones

Protracted by L. S. Straw

Soundings penciled by L. S. Straw

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by Harold W Murray

Verified by Huron.

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1929

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 6

REGISTER NO. 5126

State Texas

General locality Houston Ship Channel

Locality Tucker Bayou to Greens Bayou

Scale 1/5000 Date of survey June 25 to July 3, 1931

Vessel

Chief of Party John A. Bond

Surveyed by J. A. Bond, E. L. Jones

Protracted by H. W. Murray

Soundings penciled by H. W. Murray

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5127

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 7

REGISTER NO. 5127

State Texas

General locality Houston Ship Channel

Locality Greens Bayou to Clinton

Scale 1/5000 Date of survey June 25 to July 9 19 31

Vessel

Chief of Party John A. Bond

Surveyed by J. A. Bond, Edmund L. Jones

Protracted by W. H. Bamford

Soundings penciled by W. H. Bamford

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1929

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 8

REGISTER NO. 5128

State Texas

General locality Houston Ship Channel

Locality Clinton to Turning Basin

Scale 1/5000 Date of survey July 7 to 11, 1931

Vessel

Chief of Party John A. Bond

Surveyed by E. A. Bond, E. L. Jones

Protracted by H. W. Marray

Soundings penciled by H. W. Murray

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated July 24, 1930, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930